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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/580,270	05/25/2006	Hiroyuki Takebe	1254-0314PUS1	5965
2292 7590 09/17/2009 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747				
EXAMINER HSIEH, PING Y				
ART UNIT 2618		PAPER NUMBER		
NOTIFICATION DATE 09/17/2009		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/580,270

Applicant(s)

TAKEBE, HIROYUKI

Examiner

PING Y. HSIEH

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 June 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3, 5, 10, 13 and 21-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 5, 10, 13, 21-26, 28 and 29 is/are rejected.
- 7) ☒ Claim(s) 27 and 30-33 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsman's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 7/21/09
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
3. Claims 1, 3, 5, 10, 13, 21-26, 28, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda (U.S. PATENT NO. 7,269,440) in view of Desclos et al. (U.S. PATENT NO. 7,310,536).

-Regarding claim 1, Ueda discloses a wireless unit (**as disclosed in fig. 4-6**) comprising a first casing containing a first circuit member (**first printed substrate 37a, fig. 6**), a second casing containing a second circuit member (**second printed substrate 37b, fig. 6**), an antenna disposed at one end of said first casing (**antenna 36, fig. 6**), and a connecting portion via which the other end of said first casing and one end of said second casing are connected such that said first casing and said second casing can be rotated relative to each other in a

hinged manner (**hinge 33 as disclosed in fig. 4 and further disclosed in col. 7 lines 43-52**), said wireless unit further comprising: a first connecting conductor connected to said first circuit member at said other end thereof (**the base contact 61 as disclosed in fig. 6 and further disclosed in col. 8 lines 29-37**), and a second connecting conductor connected to said second circuit member at said one end thereof (**the base contact 71 as disclosed in fig. 6 and further disclosed in col. 8 lines 38-46**). However, Ueda fails to disclose the second connecting conductor is capable of being electrically connected to said first connecting conductor through an insulator or air, wherein one plane A of said first connecting conductor and one plane B of said second connecting conductor oppose each other with the insulator or air therebetween such that the plane A and the plane B are disposed at a certain interval.

Desclos et al. disclose the second connecting conductor is capable of being electrically connected to said first connecting conductor through an insulator or air (**as disclosed in col. 7 lines 33-37**), wherein one plane A (**i.e., plane 20(a), fig. 5c**) of said first connecting conductor and one plane B (**i.e., plane 20(b), fig. 5c**) of said second connecting conductor oppose each other with the insulator or air therebetween such that the plane A and the plane B are disposed at a certain interval (**as disclosed in col. 7 lines 30-39**).

Therefore, it would have been obvious to one of ordinary skills in the art at the time of invention to modify the cable 47 as disclosed by Ueda to be replaced with the coupling portions 20(a)-(d) as disclosed by Desclos et al. One is

motivated as such in order to provide a wireless apparatus having a foldable structure allowing improved antenna condition when the terminal is opened.

-Regarding claim 3, the combination further discloses said connecting portion is a hinge, and said plane A and plane B of said first and said second connecting conductors oppose each other at said certain interval along a length direction of said hinge (**Desclos et al., as shown in fig. 5c**).

-Regarding claim 5, the combination further discloses the at least partly ring-shape portion has an opening in which a pin constituting said hinge portion is inserted (**Desclos et al., portion 20(a)-(d) can be curved as disclosed in col. 7 lines 41-45**).

-Regarding claim 10, the combination further discloses the area with which said one plane of said first connecting conductor and the one plane of said second connecting conductor that is disposed at least partly opposite to each other at a certain interval varies depending on the positional relationship between said first casing and said second casing (**Desclos et al., as disclosed in col. 7 lines 30-39**).

-Regarding claim 13, the combination further discloses as said casings are rotated relative to each other in a hinged manner (**Ueda, first and second bodies 37a and 37b are foldable about the hinge 33 as disclosed in fig. 6 and further disclosed in col. 10 lines 21-26**), the effective casing length relative to said antenna is adjusted in a direction such that the drop of antenna

efficiency is prevented (**Ueda, ground length L1 and L2 as disclosed in fig. 6 and further disclosed in col. 10 lines 7-34**).

-Regarding claim 21, Ueda discloses a wireless unit (**as disclosed in fig. 4-6**) comprising a first casing containing a first circuit member (**first printed substrate 37a, fig. 6**), a second casing containing a second circuit member (**second printed substrate 37b, fig. 6**), an antenna disposed at one end of said first casing (**antenna 36, fig. 6**), and a connecting portion via which the other end of said first casing and one end of said second casing are connected such that said first casing and said second casing can be rotated relative to each other (**hinge 33 as disclosed in fig. 4 and further disclosed in col. 7 lines 43-52**), said wireless unit further comprising a first connecting conductor connected to said first circuit member at said other end thereof (**the base contact 61 as disclosed in fig. 6 and further disclosed in col. 8 lines 29-37**), and a second connecting conductor connected to said second circuit member at said one end thereof (**the base contact 71 as disclosed in fig. 6 and further disclosed in col. 8 lines 38-46**). However, Ueda fails to disclose one plane A of said first connecting conductor and one plane B of said second connecting conductor oppose each other such that the plane A and the plane B are disposed at a certain interval, and capacitance is formed by said one plane A and said one plane B.

Desclos et al. disclose one plane A (i.e., **plane 20(a), fig. 5c**) of said first connecting conductor and one plane B (i.e., **plane 20(b), fig. 5c**) of said second

connecting conductor oppose each other such that the plane A and the plane B are disposed at a certain interval, and capacitance is formed by said one plane A and said one plane B **(as disclosed in col. 7 lines 30-39)**.

Therefore, it would have been obvious to one of ordinary skills in the art at the time of invention to modify the cable 47 as disclosed by Ueda to be replaced with the coupling portions 20(a)-(d) as disclosed by Desclos et al. One is motivated as such in order to provide a wireless apparatus having a foldable structure allowing improved antenna condition when the terminal is opened.

-Regarding claim 22, the combination further discloses said capacitance changes depending on the changes of the position of said first casing relative to the position of said second casing of the cellular wireless unit **(Desclos et al., as disclosed in col. 7 lines 30-39)**.

-Regarding claim 23, the combination further discloses said capacitance changes depending on changes of the opposing area of said one plane of said first connecting conductor and said one plane of said second connecting conductor **(Desclos et al., as disclosed in col. 7 lines 30-39)**.

-Regarding claim 24, the combination further discloses said at least partly ring-shaped connecting conductors are at least semi circular ring-shaped **(Desclos et al., portion 20(a)-(d) can be curved as disclosed in col. 7 lines 41-45)**.

-Regarding claim 25, the combination further discloses the opposing area formed between said one plane A and said one plane B, varies with rotation of

said first casing and said second casing relative to each other (**Desclos et al., col. 6 lines 19-37**).

-Regarding claim 26, the combination further discloses the distance between said one plane A and said one plane B is kept constant when said first casing and said second casing are rotated relative to each other (**Desclos et al., as shown in fig. 5c**).

-Regarding claim 28, the combination further discloses an axle connecting the first casing and the second casing allowing the first casing to be rotated relative to the second casing in a manner that a main face of the first casing remains parallel to a main face of the second casing (**Desclos et al., hinge 23, fig. 5c**).

-Regarding claim 29, the combination further discloses the connecting portion is a hinge, and the other end of said first casing and the one end of said second casing are connected by the hinge such that said second casings are rotatable while the respective ends remain substantially parallel to each other (**Desclos et al., hinge 23, fig. 5c**).

Allowable Subject Matter

Claims 27 and 30-33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments with respect to claims 1 and 21 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **PING Y. HSIEH** whose telephone number is (571)270-3011. The examiner can normally be reached on **Monday~Thursday 8am ~ 4pm**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Nay Maung** can be reached on 571-272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/P. Y. H./
Examiner, Art Unit 2618

/Lana N. Le/
Primary Examiner, Art Unit 2614